

PATENT COOPERATION TREATY

From the Japan Patent Office

(INTERNATIONAL SEARCHING AUTHORITY)

PCT

To: Agent of Applicant

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WRITTEN OPINION OF THE INTERNATIONAL

SEARCHING AUTHORITY

(PCT Rule 43-2.1)

		Date of mailing (day/month/year)	08.6.2004
Applicant's or agent's file reference	09620	For Further Action see paragraph 2 below	
International application No. PCT/JP2004/002464	International filing date (day/month/year) 01.03.2004	Priority date (day/month/year) 04.04.2003	
International Patent Classification (IPC)			
		Int. Cl. ⁷ C07D215/14	
Applicant KURARAY CO., LTD.			

1. This report contains indications relating to the following items:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Box No. I | Basis of the opinion |
| <input type="checkbox"/> Box No. II | Priority |
| <input type="checkbox"/> Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> Box No. V | Reasoned statement under Rule 43-2.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> Box No. VI | Certain documents cited |
| <input type="checkbox"/> Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> Box No. VIII | Certain observations on the international application |

2. Further Action

If a demand for international preliminary examination is made, this written opinion is the first drawn up by the International Preliminary Examining Authority (IPEA) except that this does not apply where the Applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Established this written opinion

21.05.2004

Name and mailing address Japan Patent Office (ISA/JP) 4-3, Kasumigaseki 3-chome Chiyoda-ku, Tokyo 100-8915 Japan	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%;"> Authorized officer Examiner Kayoko Enomoto Telephone No. 03-3581-1101 extension 3492 </td> <td style="width: 30%; text-align: center; border: 1px solid black;"> 4P 9638 </td> </tr> </table>	Authorized officer Examiner Kayoko Enomoto Telephone No. 03-3581-1101 extension 3492	4P 9638
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Form PCT/ISA/237 (cover sheet) (January 2004)

ATTACHMENT E

**WRITTEN OPINION OF THE INTERNATIONAL
SEARCHING AUTHORITY**

Intern. application No. PCT/JP2004/002464

I. Basis of the opinion

1. Unless otherwise indicated under this item, this written opinion was drawn up based on the language in which the international application was filed.
[] This written opinion is in the following language _____ which is:
The language of a translation furnished for the purposes of the international search (under Rule 12.3 and 23.1 (b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material
 - ☐ on paper
 - ☐ in electronic form
 - c. time of filing/furnishing
 - ☐ contained in the international application in written form
 - ☐ filed together with the international application in computer readable form
 - ☐ furnished subsequently to this Authority for the purposes of search
3. In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL
SEARCHING AUTHORITY

Intern. application No.PCT/JP2004/002464

V. Reasoned statement under Rule 43-2.1(a)(i) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1	YES
	Claims		NO
Inventive Step (IS)	Claims	1	YES
	Claims		NO
Industrial Applicability (IA)	Claims	1	YES
	Claims		NO

2. Citations and Explanations

References

1. JP 2001-316369 A (KURARAY CO., LTD.) 2001.11.13
2. DE 3905908 A (BAYER AG) 1990.09.06
3. Tetrahedron Letters, 1990, Vol.31, No.3, p. 349-52
4. Journal of Organic Chemistry, 1978, Vol.43, No.19, p.3788-9

Explanations

Claim 1

The invention described in claim 1 has novelty and an inventive step over the references cited in the International Search Report.

References 1-4 do not describe reacting a quinolinecarbaldehyde compound represented by the formula (II) and an imine compound represented by the formula (III), as described in claim 1 of the present application, and such reaction is not obvious to even those of ordinary skill in the art from the description of references 1-4.